



<http://institutes.lanl.gov/isti/summer-school/>  
<http://newmexicoconsortium.org/probe/summer>

## HOW TO APPLY

Applications will be accepted  
**JANUARY 9, 2012 — FEBRUARY 17, 2012**

CS/CE/EE Undergraduate Students are Encouraged to Apply.

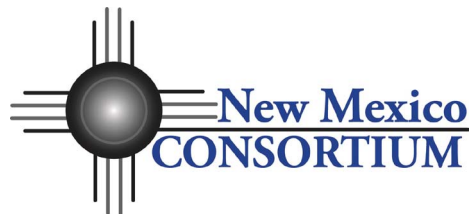
- Submit a current resume;
- Official University Transcript (with spring courses posted and/or a copy of spring 2012 schedule) 3.0 GPA minimum;
- One Letter of Recommendation from a Faculty Member; and
- Letter of intent stating strengths, goals, and interests.

Send all application materials to:

Carol Hogsett  
Los Alamos National Laboratory  
Mail Stop B260  
Los Alamos, NM 87545

Email: [carol@lanl.gov](mailto:carol@lanl.gov)  
Voice: 505-665-4732  
Fax: 505-665-4361

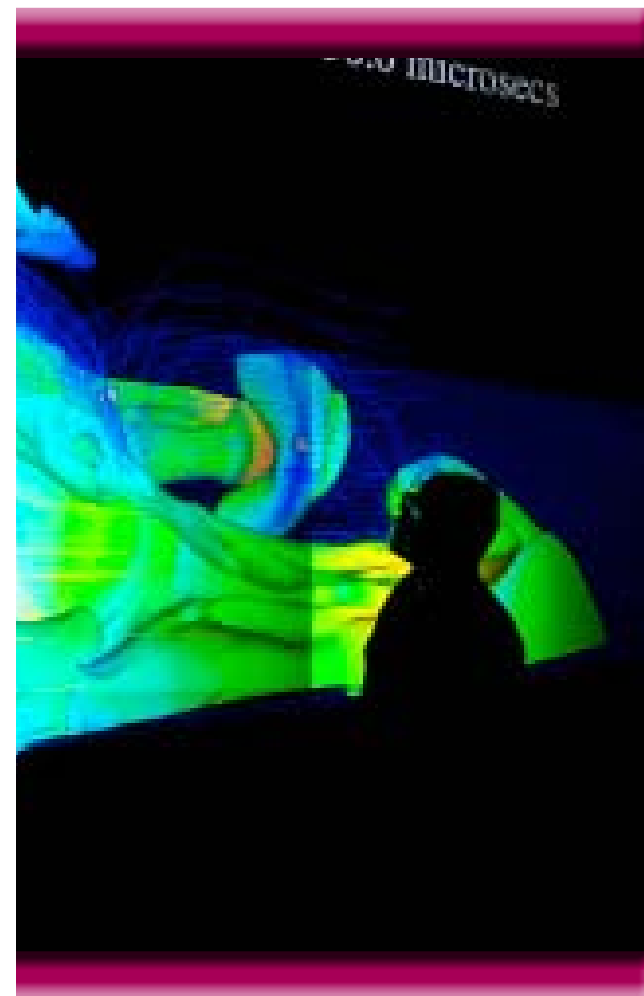
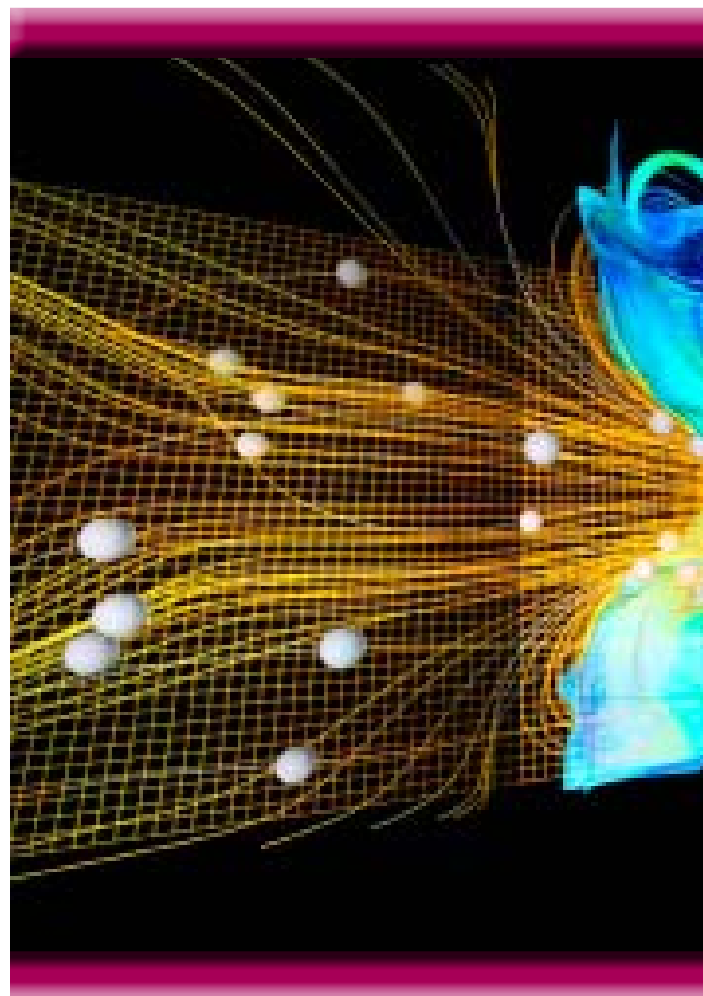
Students will be notified of selection by the end of February 2012.



New Mexico Consortium and  
Los Alamos National Laboratory

## Computer System, Cluster, and Networking Summer Institute

An NSF-sponsored undergraduate summer institute



# Computer System, Cluster, and Networking Summer Institute

## Purpose

The Computer System, Cluster, and Networking Summer Institute (CSCNSI) is a focused technical enrichment program targeting third-year college undergraduate students currently engaged in a computer science, computer engineering, or similar major. The program emphasizes practical skill development in setting up, configuring, administering, testing, monitoring, and scheduling computer systems, supercomputer clusters, and computer networks through a variety of activities including hands-on technical training, lectures, professional development seminars, and tours of LANL facilities.

Students work in small project teams to execute real-world projects on computer clusters that they assemble and configure. A university instructor provides class instruction, and LANL subject matter experts mentor team projects. Students develop written and oral communications skills through critiqued presentations and present their work at a technical poster session at the conclusion of the Summer Institute. The CSCNSI is also an innovative, proactive approach

to making the students aware of career possibilities within the Laboratory.

## Description

The Information Science and Technology Institute (ISTI) and the New Mexico Consortium (NMC) are soliciting undergraduate student applicants for the Summer Institute 2012.

During the nine-week Institute, students will receive technical training/lectures, professional development seminars, and laboratory experience with LANL staff and an experienced university instructor. A hands-on computer system laboratory/machine room fully populated with unassembled computer nodes, networking equipment, and assorted equipment, cables, and supplies are provided. Additionally, practical skill



Student presentation on summer project work

development in setting up, configuring, administering, testing, monitoring, and scheduling computer systems, supercomputer clusters, and computer networks will be emphasized and facilitated. Technical breadth will be developed via exposure to a variety of key topics, technologies, and problems of interest through participation in tutorials, seminars, guest

## Students

lectures by computer professionals and scientists, as well as LANL facility tours. During the Institute, students will work in small project teams and will present their work in a technical forum. A University faculty instructor and LANL mentors will be available as resources throughout the summer.

This highly-selective program is designed for third year (i.e., Junior) and above undergraduate students, although in some cases, Sophomore applicants may be considered. Acceptance into the program will be based on academic record (3.0 GPA minimum), interest and goal statement, and a letter of recommendation.



Students testing QDR Infiniband hardware



Los Alamos Research Park

As a general guideline, students should have experience with the LINUX operating system and sufficient academic achievement to make them eligible graduate school candidates upon completion of their undergraduate program. CS and EE/CE students from US universities will be considered. This program is limited to US citizens.

## Duration and Location

The summer school program will last nine weeks, June 4 through August 3, and will be held at the New Mexico Consortium (NMC) in Los Alamos, NM.

## Faculty

A visiting computer science university faculty member will conduct lectures and supervise machine room activities. In addition, Laboratory staff will provide guest lectures on a diverse set of research topics, as well as technical mentor projects.



Andree Jacobson  
CSCNSI Instructor  
2007-2011

*"This program is a unique and awesome experience. Learning from the incredibly skilled and dedicated people here at LANL is one of the best experiences in my education. Everyone was so kind and inspiring. I would love to work with all people I've met." — 2009 Student*

*"My summer at ISTI was one of the most awesome and educational experiences of my life. Because of the resources available at this unique facility, I was able to learn about high-performance computing (HPC) by actually doing it instead of just being taught from a textbook." — 2010 Student*

*"The summer institute was a great experience. I gained tons of great knowledge in learning how supercomputers and computer clusters work. I also learned a lot about how to make a poster and deliver a technical talk." — 2011 Student*